OUTSOURCING SYSTEMS OPERATIONS

EUROPE 1992

INPUT

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EUROPE, 1992

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Abstract

The European market for outsourcing systems operations is now growing at approximately twice the rate of the information services market overall. However vendors still face considerable challenges in this market as profitability margins remain low. In addition, the level of competition is still increasing as the leading systems vendors and U.S.-based professional services vendors target the European outsourcing market with increasing enthusiasm. Accordingly vendors need to identify ways of offering price-competitive platform operation services, while simultaneously taking advantage of higher margin applications operations and business operations opportunities.

This report analyses the European market for outsourced systems operations services, focusing in particular on the trends in the platform operations and applications operations sectors. The major opportunities in these sectors are identified along with vendors' responses to the changing nature of the marketplace.

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I
Introduction

A
Scope and Objectives

The market for outsourcing systems operations functions has grown substantially in Europe over the last year. However, this revenue growth has not led to similar levels of profit growth for vendors. Indeed, the level of competition in the European outsourcing market will continue to increase as the major systems vendors seek to establish leadership positions, and as U.S. professional services companies are attracted by the high level of activity taking place. Accordingly, the market positioning of vendors will be critical to their future success.

In addition to its rapid growth, the European systems operations market is changing in nature, creating new market opportunities.

This report monitors the changes taking place in two sectors of the market: platform operations and applications operations. The nature of service delivery in the platform operations sector is being strongly influenced by the trend to downsizing. Users have traditionally been more reluctant to adopt outsourcing of applications operations functions. However it may be possible for vendors to stimulate this sector of the market by adopting more creative offerings.

Profiles of the outsourcing activities of leading vendors in France, Germany and the United Kingdom are provided in Appendix A.

INPUT considers the submodes shown in Exhibit I-1 to be outsourcing-type relationships and in aggregate to represent the outsourcing market.

Outsourcing Components—INPUT's View

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                        ┌──────────────┐
                        │  Outsourcing │
                        └──────────────┘
              ┌──────────────────┴──────────────────┐
   ┌────────────────────┐              ┌────────────────────────┐
   │ Systems Operations │              │  Professional Services │
   └────────────────────┘              └────────────────────────┘
      ┌──────┼──────────┐                         │
┌───────────┐ ┌──────────────┐        ┌────────────────────────┐
│ Platform  │ │   Network    │        │ Applications Management│
│ Operations│ │  Management  │        └────────────────────────┘
└───────────┘ └──────────────┘
   ┌──────────────┐ ┌──────────────┐
   │ Applications │ │   Desktop    │
   │ Operations   │ │   Services   │
   └──────────────┘ └──────────────┘
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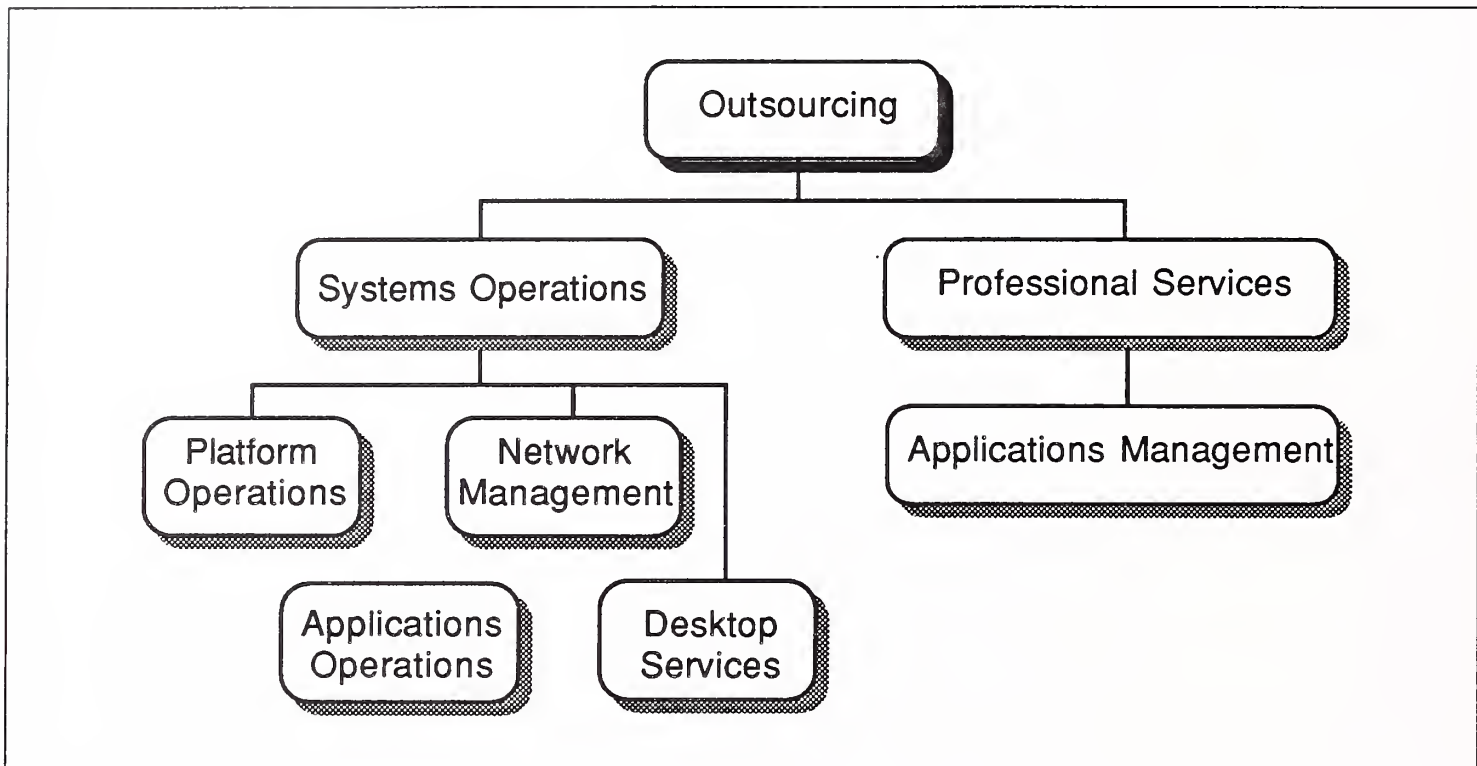
The subsectors within systems operations are defined as follows:

- Platform Systems Operations—The vendor is responsible for managing the computer systems and their associated networks.

- Applications Systems Operations—The vendor is responsible for developing and/or maintaining a client's applications software as well as operating and managing the computer systems and their associated networks.

- Network Management—Contracting to a vendor for the operations and management of the computer-related telecommunications network, transmitting data, voice, image, text, local-area and wide-area networks. Voice-only network operations are not part of information systems outsourcing.

- Desktop Services—Contracting out to a vendor for the deployment, maintenance, support and connectivity of the firm's PC/workstation inventory. The service may also include performing the help desk function.

This report analyses the evolution of the market in Europe for two of these subsectors: platform operations and applications operations.

The markets for network management and desktop services are analysed separately in the reports:

- Outsourcing Network Management and Operations
- Outsourcing Desktop Services.

Market forecasts for each of these four subsectors by country are provided in the report "Information Systems Outsourcing Market Opportunities, 1992-1997".

B
Methodology

The research that contributed to this study was derived from two main sources:

- A series of 15 in-depth interviews with systems operations vendors in Europe.

- INPUT's continuous annual analysis of the computer software and services market, which includes interviews with both vendors and users.

Additionally, INPUT's extensive library and data-base of information relating to the software and services industry was utilised.

C
Report Structure

Section II consists of the Executive Overview, which is a summary of the key findings of the study.

Section III analyses the overall market for systems operations.

Section IV identifies the major trends within the platform operations subsector.

Section V identifies the major trends within the applications operations subsector.

D
Related Reports

Information Systems Outsourcing Market Opportunities, 1992-1997.

Information Systems Outsourcing Competitive Analysis.

Outsourcing Network Management and Operations.

Outsourcing Desktop Services.

Outsourcing Applications Management.

II
Executive Overview

A
Systems Operations Competition Driving Down Margins

In recent years the majority of European systems operations contracts have been for outsourcing platform operations services. These contracts have offered very low levels of profitability and vendors are continually seeking higher margin opportunities such as applications operations.

While it is important for vendors to seek means of stimulating the applications operations sector, the growth of applications operations is not forecast to be sufficient to alter the dominance of IS infrastructure management in the outsourcing market. Vendors will still need to be able to offer price-competitive infrastructure management services.

The key reasons for this are that:

- The increasing legitimacy of outsourcing is leading to the emergence of a number of very large platform operations contracts.

- Transition outsourcing is still growing in importance, driven by downsizing.

- As platform operations declines, new forms of infrastructure management such as network management and desktop services will take its place.

Over the next twelve months, the European systems operations market growth will be increasingly driven by massive contracts, as a number of major organizations announce platform operations contracts. Two examples of this trend are the United Kingdom Inland Revenue and BP Exploration. The proposed contract concerned with the computer operations of the Inland Revenue is estimated to be worth in excess of $100 million per annum. Invitations to tender will be issued by the end of 1992 with the intention of contracts being awarded by September 1993. Similarly, BP Exploration is evaluating the outsourcing of the management of its IS infrastructure on a worldwide basis.

These contracts are expected to be only the first manifestations of this trend. The U.K. government will consider outsourcing the computer operations of other major government departments. Similarly, other major multinationals are likely to follow BP's example. Gradually this trend is forecast to spread throughout Europe.

These attractive opportunities are leading to new market entrants, with considerable interest in the European outsourcing market being shown by the leading system vendors and U.S. services companies.

The impact of this considerable competition on the outsourcing market was succinctly summarised by Geoff Unwin recently with the following comments in Hoskyns half-year statement:

> "Systems operations orders for the first six months are greater than in the previous two years put together, but the price is a different matter. Margins are very tight indeed."

Secondly, transition outsourcing is now growing substantially in Europe. In particular, there is increased emphasis on transition outsourcing in France. Here it accounts for 50% of Axone's revenues, and Groupe Bull regards the provision of transition outsourcing as a key service in facilitating clients' adoption of its distributed computing architecture.

Transition outsourcing has been a major component of the platform operations market in the United Kingdom for many years. Driven by the increased recognition of the benefits of downsizing, transition outsourcing continues to remain a major component within platform operations. Some examples of transition management contracts are listed in Exhibit 1. It should be noted that not all of these transitions are driven by downsizing, but this remains the major influence.

EXHIBIT II-1

Transition Outsourcing Contracts

Client	Vendor	Contract Value ($M)
John Laing	BIS	20
Bank of England	Hoskyns	12
Thames Water	Andersen Consulting	10
Pilkington Group	EDS-Scicon	8
Thorn EMI Rentals	Data Sciences	7

Thirdly, as platform operations declines over the next five years, new forms of infrastructure management will take its place. Organisations are increasingly endeavouring to outsource all their IS infrastructure including such key elements as their corporate networks and desktop services, and not just their mainframe data centre operations. These new services will also be comparatively price sensitive.

It is expected that infrastructure management consisting of platform operations, network management, and desktop services will continue to account for approximately 70% of systems operations revenues. However, as the importance of platform operations declines from 45% of systems operations in 1992 to 40% by 1997, so the increasing importance of network management and desktop services will fill this gap.

Within the platform operations subsector itself, there will be changes. At present the subsector is dominated by the management of mainframe-based systems located in vendors' data centres. Over the forecast period, there will be increased emphasis on the management of mid-range and client/server systems increasingly located on client premises and managed remotely.

Vendors find it very difficult to differentiate their services from those of their platform operations competitors.

Vendors' strategies to tackle the problem of low profitability include:

- Consolidating data centres to reduce their platform operations cost base

- Targeting higher value-added services, particularly applications operations

- Upgrading their existing platform operations clients to applications operations.

Contract renewals have comparatively little impact on contract profitability. This is because users tend to remain faithful to vendors who have provided a high level of service, and because high one-off costs prove a major deterrent to switching vendors. This particularly applies where changing vendors would necessitate moving mainframe-based services between vendors' data centres.

However the applications operations sub-sector is itself now starting to become much more competitive in Europe, as it begins to receive considerable attention from the major U.S. outsourcing specialists such as CSC and Perot Systems. To respond to this competitive threat, vendors will have to offer more imaginative forms of partnership to their clients such as joint-venture companies for new systems development.

B
Large Systems Operations Contracts Begin to Emerge

In the past, outsourcing contracts in Europe have typically been of relatively low value, with very few contracts exceeding a value of $20 million. Clients have usually only outsourced an element of their IS activities and have been aware of the need to test the benefits of outsourcing before fully committing themselves to this concept.

However outsourcing is now becoming a more mature and acceptable concept in Europe. This is having an impact on the scale of IS outsourcing which is taking place.

Exhibit II-2 lists some major systems operations contracts which have been awarded in the last twelve months.

EXHIBIT II-2

Major Outsourcing Contracts

Client	Vendor	Contract Value ($M)	Number of Years
East Midlands Electricity	Perot Systems	600	10
Europcar	Perot Systems	400	10
London Stock Exchange	Andersen Consulting	100	5
Granada	Hoskyns	100	5

These contracts are likely to be joined in the near future by others of comparable size. For example, BP Exploration is currently negotiating the outsourcing of its IS infrastructure worldwide, which in turn will demonstrate the feasibility of outsourcing to other multinationals which may be considering such a move. At the same time, the U.K. government is seeking to outsource the management of the IS infrastructures of a number of major government departments, beginning with the Inland Revenue in 1993.

These moves will further add to the legitimacy of large-scale outsourcing in Europe.

C
Downsizing Defines Future Shape of Infrastructure Outsourcing

A breakdown of the market forecast for European systems operations is shown in Exhibit II-3.

EXHIBIT II-3

Principal Market Segments—1992-1997
Systems Operations, Europe
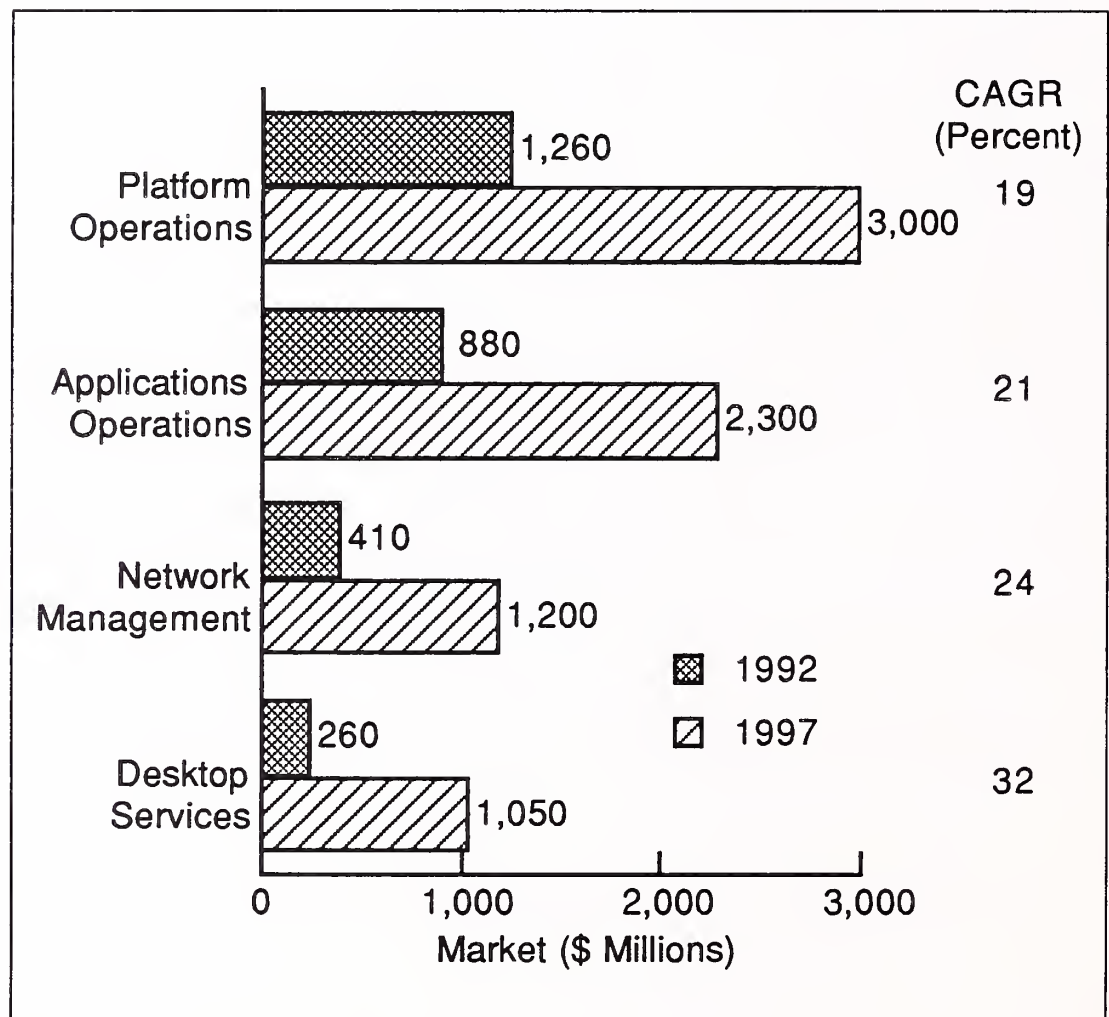
The forecast shows that INPUT expects the market for "infrastructure management"—defined as the sum of platform operations, network management, and desktop services—to account for approximately 70% of the systems operations market by value throughout the forecast period.

However the mix of activities within "infrastructure management" is expected to change significantly. As the proportion of the market accounted for by platform operations falls, so this gap will be filled by the growth in network management and outsourced desktop services.

II-6   OE-SO2

The nature of platform operations itself will also change. One element of platform operations is "transition outsourcing" whereby a user migrating from one IS architecture to another requests a vendor to manage the "old systems" during the transitional period. This type of outsourcing has been established in the United Kingdom for a number of years, and is now becoming more established in France. Here it now accounts for 50% of the IBM subsidiary, Axone's outsourcing revenues.

Downsizing is also leading to a change in the mix of equipment being managed, with the proportion of mid-range systems increasing. These systems will increasingly remain on the clients' premises and be managed remotely by the vendor.

D
Partnerships—The Key to Applications Operations Success

Many of the leading European systems operations vendors are keen to develop their applications operations client base. These vendors typically perceive applications operations to be a much more profitable activity than the highly competitive platform operations subsector.

The main approach taken to applications operations by many of these vendors has been the "upgrading" of their existing platform operations client base. However the European vendors are now facing a high level of competition in the application operations subsector, particularly from the major specialist U.S. outsourcing vendors such as CSC and Perot Systems. Other U.S. vendors are also believed to be turning their attention to the European systems operations market.

However European companies are typically reluctant to outsource their systems development activities. Accordingly a creative approach to targeting applications operations is required. User/vendor joint ventures are one approach which has met with a measure of success. Some examples of user/vendor joint ventures are listed in Exhibit II-4.

EXHIBIT II-4

User/Vendor Joint Ventures

User	Vendor
Yorkshire Water Authority	Logica
British Airways	Sema Group
East Midlands Electricity	Perot Systems

Much of the traditional resistance to applications operations in Europe stems from the following arguments:

* Systems development can have a key impact on an organisation's competitive advantage (unlike platform operations), and so should be controlled in-house.

* In-house personnel understand the organisation's culture and business better than do vendor personnel. Understanding of these is critical to successful systems development.

* Systems development (unlike platform operations) offers no economies of scale. Indeed vendor personnel are more expensive than in-house personnel.

Joint ventures, such as those listed in Exhibit II-4, circumvent most of these objections. The vendor is in a position to argue that economies of scale can be delivered within a joint venture approach since any new systems can be "packaged" and sold by the vendor to other clients in the same industry sector worldwide.

Accordingly the client will receive the benefits of the most up-to-date systems while recouping some of the expense of their development.

The vendor is also in a position to argue that the client receives the advantages of having its own staff—who have a high level of business understanding—participate in the design process. At the same time, the vendor will supply via its own personnel:

* Improved systems development management capabilities

* An up-to-date knowledge of the latest technologies and techniques.

E
Business Operations Emerges in the Public Sector

Business Operations is often regarded as the next logical step in outsourcing following applications operations. While applications operations is solely concerned with the outsourcing of IS functions, business operations goes one step further. It involves the outsourcing of an entire business process of which the IS component is but a part.

The principal example of outsourcing until recently, has been BP Exploration's outsourcing of its accounting function to Andersen Consulting. However Andersen Consulting has so far been unable to extend its initial lead in this area.

In the last year the main focus of business operations activity has been in the local government sector within the United Kingdom. Here local authorities are faced with two major driving forces. Firstly they are being encouraged by central government to outsource. This particularly applies to their IS services. Secondly they are faced with the collection of an unpopular tax, the nature of which is set to change in the near future. As a result, an organisation specialising in services for local government, the Capita Group has been able to win a number of business operations contracts for its revenue collection services.

For example, Capita has a $7 million contract with East Cambridgeshire District Council, a U.K. local authority. This involves the Capita Group in taking over responsibility for the council's community charge, housing benefits, and council tax systems. The company is remunerated in line with its success in meeting various collection targets.

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III
The Challenge for Vendors Is To Capture Applications Operations Contracts

A
Applications Operations Experiences Higher Growth Than Platform Operations

Exhibit III-1 provides INPUT's forecast for the systems operations market over the period 1992-1997.

EXHIBIT III-1

Systems Operations Market Forecast
Europe, 1992-1997

Subsector	Market Forecast ($ Millions)			
	1991	1992	1992-7 CAGR (%)	1997
Platform Operations	1,100	1,260	19	3,000
Applications Operations	730	880	21	2,300
Network Management	320	410	24	1,200
Desktop Services	160	260	32	1,050
Total	2,300	2,800	22	7,500

It is forecast that the growth in the applications operations subsector will exceed that in platform operations. This will be driven by the increasing

maturity of the outsourcing market and the greater willingness of organisations which have experienced platform operations to migrate to applications operations services.

By value, platform operations comprised 45% of the systems operations market in 1992, and that is expected to decrease to 40% by 1997. However the dominance of the "infrastructure management" outsourcing market will be maintained by the increase in importance of network management and desktop services. As a proportion of the systems operations market, these will increase from 24% by value in 1992 to 30% in 1997.

The remainder of this chapter will concentrate solely on platform operations and application operations. All further exhibits will specifically exclude the network management and desktop services subsectors of systems operations.

B
Transition Outsourcing Will Grow in Importance

Exhibit III-2 provides a breakdown of systems operations contracts by subsector.

EXHIBIT III-2

Contract Types, 1992
Systems Operations, Europe

Contract Type	Proportion of Contracts (%)
Platform Operations - Transition Outsourcing - Other Platform Operations	30 40
Applications Operations	30

The platform operations subsector has been further divided into two categories: transition outsourcing and other platform operations.

Transition outsourcing currently accounts for 30% of systems operations contracts, and this proportion is expected to increase as organisations increasingly move from a mainframe-based centralised information systems architecture to a decentralised client/server approach.

In a transition outsourcing contract, the vendor takes over the supply and management of services based on existing equipment, while the client develops new systems based on the new information systems architecture. In practice, this typically involves the transfer of mainframe equipment from the user's premises to the vendor's data centre.

In the United Kingdom, transition outsourcing has been a major element of the outsourcing market. Until 1992, it accounted for over 50% of Hoskyns' outsourcing contract base. More recently, transition outsourcing has become established in France. Here it now accounts for 50% of Axone's outsourcing revenues.

Groupe Bull is also starting to offer transition outsourcing services which the company regards as a key element in transferring users from a mainframe environment to its own Distributed Computing Model.

C
Contract Lengths Begin to Polarise

Exhibit III-3 provides a breakdown of the systems operations market by contract length.

EXHIBIT III-3

Contract Lengths, 1992
Systems Operations, Europe

Contract Period (Years)	Proportion of Contracts (%)
< 2	15
2 - 4	25
4 - 5	50
> 5	10
Average	4 Years

In practice, it can be seen that the most common length of systems operations contract is four to five years. Comparatively few contracts are for less than two years or for periods in excess of five years.

The breakdown of systems operations contract length by contract type is shown in Exhibit III-4.

EXHIBIT III-4

Contract Length by Contract Type
Systems Operations, Europe

Contract Type	Average Contract Length (Years)
Platform Operations	3.5
- Transition Outsourcing	2.5
- Other Platform Operations	4.5
Applications Operations	5

Overall, vendors perceive that systems operations contract lengths are increasing.

However, the determinants of contract length vary between the platform operations and applications operations subsectors. Within the platform operations subsector, the length of transition outsourcing contracts will be determined by the nature of the transition process. With the increased emphasis on the use of application software products as the bases of new systems, the transition period is tending to become shorter.

The contract lengths of non-transitional platform operations contracts are strongly influenced by the type of infrastructure being managed by the vendor. Where a mainframe, or a number of mainframes, are being transferred to a vendor's data centre, then the costs of implementing this transfer dictate that the contract be relatively lengthy and typically last for approximately five years. Where mid-range equipment is involved, particularly if this equipment remains on client premises, then it is economically feasible for contracts to be of a shorter duration. For example, the National Grid's contract with Data Sciences to manage its Unix-based platforms is of two years' duration. Butlin's contract with Hoskyns to manage its Digital Vax-based reservation system is for three year's duration. So the average length of platform operations contracts is starting to reduce, driven by an increasing proportion of contracts involving mid-range equipment rather than mainframes.

Overall, platform operations contract lengths are gradually shortening under the influence of shorter transition periods and the increasing tendency to outsource the management of mid-range based equipment.

However the opposite tendency appears to be occurring in the applications sub-sector. Here, driven by the substantial contracts being awarded to the U.S. outsourcing specialists, contract lengths are starting to increase. The major examples of this in 1992 are the contracts won by Perot Systems with Europcar and East Midlands Electricity. Both of these are ten-year contracts.

Similarly, a greater proportion of high-value contracts is starting to emerge.

Exhibit III-5 provides a breakdown of systems operations contracts by value.

EXHIBIT III-5

Contract Values
Systems Operations, Europe

Contract Value ($M per annum)	Proportion of Contracts (%)
< 2m	50
$2m - $5m	30
$5m - $10m	15
> $10m	5
Average	$2 million

Historically the average value of systems operations contracts in Europe has been low, with half of all contracts valued at up to $2 million per annum. For example, Hoskyns generated approximately $200 million in 1991 from a contract base of more than 100 clients.

However as outsourcing has become more acceptable, so some major contracts have been awarded and more will follow over the next few years. For example, Perot Systems has recently won business worth $100 million per annum from just two clients. Other major contracts which are imminent include those from national government departments, such as the Inland Revenue in the United Kingdom. Also it is probable that a number of multinationals will follow the lead taken by BP in outsourcing. BP Exploration is currently negotiating to outsource its entire IS infrastructure on a world-wide basis.

Exhibit III-6 provides a breakdown of systems operations by client turnover.

EXHIBIT III-6

Breakdown by Client Turnover, 1992
Systems Operations, Europe

Turnover of Client Organisation	Proportion of Contracts (%)
> $200m	70
$40 - $200m	25
< $40m	5

There is no clear consensus amongst vendors on the most appropriate size of organisation to target for systems operations. Some vendors remain committed to focusing their attention on the major organisations within each sector. Clearly the majority of major organisations have yet to adopt outsourcing, and any contracts won in this area would offer the potential for considerable revenues.

However other vendors perceive that small and medium-sized organisations have the least capability to meet their IS needs in-house, and so offer the greater potential for systems operations services.

D
Banking & Finance Sector Is Prime Candidate for Systems Operations

Overall the adoption of systems operations by industry sector is hard to predict, and varies considerably from country to country. There are many factors which have a positive impact on the tendency to outsource such as:

- The level of cost pressure faced by the organisation

- The urgency of the need to redevelop the organisation's information systems.

However, ultimately the decision to outsource depends largely upon the senior directors' attitudes towards outsourcing and the quality of their relationship with the in-house IS management. These attitudes obviously vary considerably within organisations in the same industry sector.

Within the scope of these limitations, it is possible to draw some broad conclusions at the country level.

Exhibit III-7 lists those sectors which are currently most receptive to systems operations in France.

EXHIBIT III-7

Receptivity to Systems Operations
Industry Sectors, France

Sector	Receptivity
Distribution	High
Transportation	High
Manufacturing	Medium-High
Financial Services	Medium-High

The distribution and transportation sectors are particularly receptive to systems operations. For example, in the distribution sector, GSI has been particularly successful in targeting hypermarkets and includes Arlaud and Carrefour amongst its clients.

Examples of contracts in the transportation sector include:

• Télésystème's contract with the Paris Port Authority

• GSI's contracts with Sernam and Gefco

• Axone's contract with the Port of Marseilles.

Interest in outsourcing is also considerable within the manufacturing and financial services sectors. Indeed, the financial services sector is facing considerable cost and competitive pressures across Europe. As a result this sector is high on the list of outsourcing prospects in Germany and the United Kingdom (see Exhibit III-8), in addition to France.

EXHIBIT III-8

Receptivity to Systems Operations Industry Sector, United Kingdom

Sector	Receptivity
Health	Very High
Central & Local Government	Medium-High
Banking & Finance	Medium-High

However the adoption of outsourcing in the United Kingdom has so far been greatest in the Public Sector, where:

- All the Regional Health Authorities have adopted some form of systems operations

- Many local authorities are outsourcing both their IS systems and their revenue collection activities.

There are now signs that the IS activities of a number of major central government departments will be outsourced, starting with the outsourcing of the management of the IS infrastructure of the Inland Revenue. It is not planned to outsource the systems development activities of the Inland Revenue initially, but it is highly likely that these activities will in turn be outsourced at a later date.

IV
Platform Operations Remains Intensely Competitive

A
Margins on New Business Tighten

In announcing a reduction in pre-tax profits for the six months to 30th April, 1992, Geoff Unwin of Hoskyns stated:

"Systems operations orders for the first six months are greater than in the previous two years put together, but the price is a different matter. Margins are very tight indeed."

Hoskyns has clearly been very successful in winning outsourcing contracts recently. In particular, the company has won a number of large contracts including a platform operations contract with Granada valued at $100 million over five years and a $10 million transition outsourcing contract with the Bank of England. Other large platform operations contracts awarded recently include IBM's contract with Equifax—worth $40 million over five years—and Data Sciences $25 million contract with the Sedgwick Group.

However the provision of platform operations remains a commodity service, and, as suggested in Exhibit IV-1, price remains a critical factor in winning new business.

Characteristics of Platform Operations Contracts

- Price is critical

- Users need to justify 15-20% cost savings

- Average contract length is 3 1/2 years

- Contract lengths are increasing

Indeed despite the public protestations of many vendors that price is not a critical factor in their success, a recent survey of leading systems operations vendors by INPUT indicated that they submitted the lowest bid in 50% of instances where they were awarded the contract. So price is clearly a critical vendor selection criteria for users.

This does not mean that vendors must necessarily submit the lowest initial bid. There are instances where users have informally notified their preferred vendor during the selection process of the price they will need to meet in order to win the contract.

On the other hand, some vendors are believed to submit very low initial bids, relying on their ability to add in "extras" once the contract has been awarded and detailed negotiations commence.

The fixing of costs to remove operating cost uncertainty in future years is typically cited by users to be a more important factor than cost reduction itself. Nonetheless in practice, vendors are currently finding that users require a cost reduction of approximately 15-20% before they will adopt platform operations.

At present, the average contract length for platform operations is approximately 3 1/2 years. However there is a strong consensus among vendors that the average platform operations contract length is increasing. There is evidence for this in the mainframe based platform operations segment. Here, for example IBM has recently signed a ten-year agreement with National Starch & Chemical. However the norm for mainframe-based contracts remains at five years. Recent examples include the renegotiation of the Sema Group's contract with Massey Ferguson, Hoskyns' contract with Granada, and IBM's contract with Equifax.

On the other hand, some of the platform operations contracts beginning to emerge based around smaller, distributed equipment are for a shorter period of time. One example is Data Sciences' contract with the National Grid, which is for an initial period of two years.

In the case of mainframes, users need to commit themselves to a longer period of time to spread the initial project costs, such as the transfer of the equipment to the vendor's data centre. Vendors are frequently prepared to offer a better price in return for a long commitment.

B
Growth in Mainframe-Based Platform Operations Remains Strong

1992 has seen a number of vendors repositioning themselves to take advantage of the growth in platform operations in the midrange and personal computer segments.

In particular, Hoskyns has re-organised its outsourcing organisation to cater for mainframe-based, midrange-based, and desktop-based services. Similarly, Data Sciences has achieved a degree of success by partnering Computeraid to address outsourcing contracts such as those with Sedgwick Group, Sphere Drake and National Grid which involved considerable elements of desktop services support.

However, despite the emergence of this new outsourcing market for the management of distributed systems and desktop services, vendors continue to anticipate the area of highest growth in platform operations to be IBM and IBM-compatible mainframes.

Vendors' relative growth expectations in the platform operations segment are shown by equipment platform in Exhibit IV-2.

EXHIBIT IV-2

Growth by Equipment Platform
Platform Operations

OE-SO2
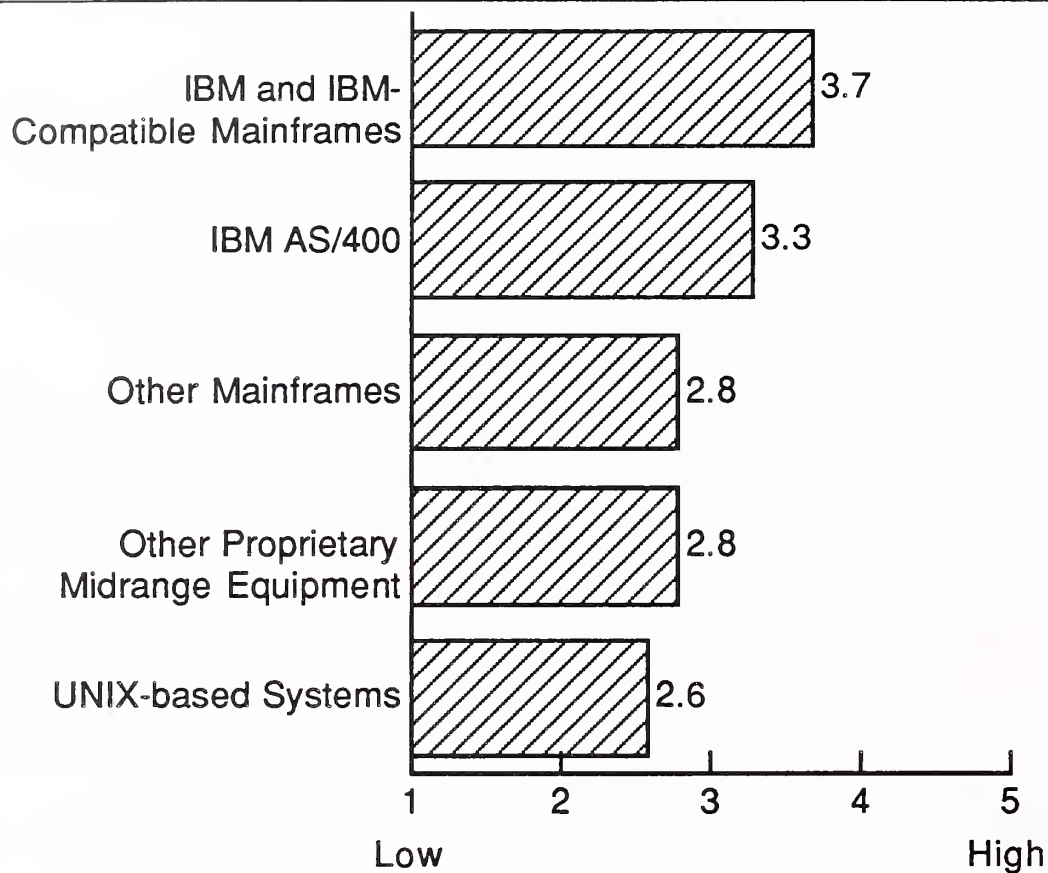
Response to the question, "How rapidly do you perceive platform operations to be growing in each of the following equipment categories? Please note on a scale of 1 to 5, where 1 = Not at all and 5 = Extremely".

Sample of ten leading European outsourcing vendors

This assessment appears to be a valid one, certainly in terms of total contract value, if not in terms of number of contracts.

Although the proportion of contracts based around midrange and desktop systems is increasing, the value of these contracts remains low compared to mainframe-based contracts.

Some examples of contracts which illustrate this point are provided in Exhibit IV-3.

EXHIBIT IV-3

Examples of Contract Values
Platform Operations

Client	Equipment	Contract Value ($M)
Granada	IBM Mainframe	100
Equifax	IBM Mainframe	40
National Grid	UNIX-based & personal computers	2

The siting of equipment outsourced under a platform operations agreement is shown in Exhibit IV-4.

EXHIBIT IV-4

Siting of Equipment
Platform Operations

Equipment Platform	Location
Mainframes	Concentrated in vendor data centres
Proprietary midrange	Equally divided between user & vendor premises
UNIX-based systems	Tend to remain on user premises

This illustrates the differing challenges that vendors will face as the nature of the platform operations market gradually changes from being mainframe dominated.

Mainframes will continue to be concentrated in vendor data centres. This is the optimum way of achieving economies of scale both in terms of the equipment itself and also in terms of the support manpower necessary to manage computer operations. There are few economies of scale to be achieved by continuing to run mainframe based services from the user's premises. Nonetheless there is clearly a psychological desire on the part of users to have their mainframe operations conducted at a local data centre rather than at a distant site. This is particularly true in France where vendors need to be seen to serve the regions from a local presence. However to do so forces vendors' costs up, sometimes to the extent that a vendor may find it uneconomic to serve a particular region. Hence vendors need to compromise between establishing local/regional presences to satisfy users' psychological needs and establishing large centralised data centres which enables them to reduce their operation costs. One approach to this issue taken in France is to establish hubs with local printing capability while centralising disk storage and processing power in remote data centres.

At the other extreme, Unix-based systems and desktop systems tend to remain on user premises. While vendors can provide the user with on-site support personnel to support the largest contracts, vendors need to centralize their support resources as far as possible and endeavour to utilize remote maintenance and help desks whenever possible.

At present the siting of proprietary midrange equipment such as the IBM AS/400 and the Digital Vax is approximately equally divided between user and vendor premises. As far as possible, vendors endeavour to use remote operations techniques for the management of those midrange machines remaining located on user premises.

C
Manufacturing, Distribution, and Transportation Sectors—Most Receptive in France

This section identifies the most receptive sectors for platform operations in France and the United Kingdom. This has not been attempted for Germany since the platform operations market has yet to develop in that country.

The most receptive sectors for platform operations in the United Kingdom are ranked in Exhibit IV-5.

EXHIBIT IV-5

Most Receptive Sectors
Platform Operations, United Kingdom

Sector	Ranking
Healthcare	1 =
Local Government	1 =
Central Government	3
Utilities	4

In the United Kingdom, the public sector is most receptive to platform operations, particularly healthcare and local government. This outsourcing has been strongly encouraged by the government which is now turning its attention to outsourcing the IS activities of central government departments.

However the outsourcing of central government activity would lead to a major change in the scale of outsourcing activity. For example, the current five-year contract to run Yorkshire Regional Health Authority's mainframes is valued at $30 million. The proposed contract concerned with the computer operations of the Inland Revenue is estimated to be worth $600 million. Such a contract would have a dramatic impact on the overall growth of the outsourcing market, and an even more dramatic impact on the outsourcing revenues of the chosen vendor. The Inland Revenue is currently working on feasibility studies. It is intended that invitations to tender will be issued by the end of 1992 and contracts awarded by September 1993. The Inland Revenue is believed to be in discussion with CSC Europe, Digital, EDS-Scicon, IBM and ICL.

Besides having the capability and financial resources to handle such a deal, the Inland Revenue will also attach considerable significance to a successful transfer of personnel. Any employee relations difficulties, and the resulting press attention, would be politically embarrassing for the government. The operations department of the Inland Revenue employs 850 personnel, which presents a considerable task in terms of individual employee assessment, counselling and negotiation.

The recently privatised utilities concerned with electricity and water supply have also been particularly active in recent years. This has been caused by the need to modify their systems rapidly to meet the demands of their new business environment.

In France, the public sector has so far shown less enthusiasm for outsourcing and platform operations. The most receptive sectors for platform operations in France are listed in Exhibit IV-6.

EXHIBIT IV-6

Most Receptive Sectors
Platform Operations, France

- Manufacturing

- Distribution

- Transportation

This pattern of activity is illustrated by the example of GSI which generates 70% of its outsourcing revenues from the manufacturing, distribution and transportation sectors. GSI has been particularly successful in penetrating the hypermarket sector, where the company's clients include Arlaud and Carrefour and in the road and rail transportation sectors where the company's clients include Sernam and Gefco.

D
Contract Renewals Have Low Impact on Contract Profitability

Exhibit IV-7 summarizes the impact of contract renewals on platform operations profitability.

EXHIBIT IV-7

Contract Renewals
Platform Operations

- 30% of users adopt competitive tendering

- Vendors expect retention rates of 95%

- Low impact on contract profitability

Overall approximately 30% of users are estimated to go to competitive tender at the end of their platform operations contract term. In the highly competitive U.K. market this figure increases to approximately 45%.

However despite this high level of competitive tendering, vendors expect to retain 95% of their clients on contract renewal. At the same time, contract renewals are estimated to have a minor impact on contract profitability. Margins on platform operations contracts are estimated to typically range between zero and five per cent.

So in practice, if not in attitude, users exhibit a very high degree of "loyalty" on contract renewal. Users will almost certainly continue their service with their original vendor unless they have either consistently suffered from poor service or perceive that their supplier has been making excessive profits at their expense. In the U.K. there are two instances where users have recently switched suppliers. One of these is now the subject of a fraud investigation. In the other case, the user perceived that his requirements had been seriously mis-sized resulting in a serious impact on service quality over the life of the contract.

User attitudes towards contract renewals are listed in Exhibit IV-8.

EXHIBIT IV-8

Contract Renewals
Systems Operations, Europe

- Reduced prices on renegotiation

- One-off project costs a deterrent to switching

- High loyalty for good service

Users frequently use the opportunity presented by the end of the contract to review the prices and service levels on offer from competing vendors. There is an expectation among users that they will secure a price reduction on their new contract whether with their existing vendor or with an alternative supplier. Some vendors endeavour to remove this expectation by reviewing contract profitability on a regular basis with their clients and adjusting the contract price accordingly.

However there is one major obstacle to users switching suppliers and that is the transition cost of transferring the service between vendors. In practice this means that it is uneconomic for users to switch suppliers to secure comparatively minor price reductions. As a result, users tend not to switch suppliers on contract renewal and vendor profit margins tend not to be significantly impacted by the contract renewal process.

E
Increased Emphasis on Transition Outsourcing in France

The key trends in vendor strategies in addressing the platform operations segment in Europe are listed in Exhibit IV-9.

EXHIBIT IV-9

Platform Operations Strategies

- Vendors continue to consolidate data centres across Europe.

- Increased emphasis on "transition outsourcing" in France.

- Emphasis on desktop services and management of distributed infrastructures in U.K.

Because of the pressure on margins and the degree of price competition in the platform operations sector, vendors are continuing to centralise their data centres wherever possible.

For example, Andersen Consulting used to have six data centres in the U.K. but has now consolidated these into two data centres sited at Bristol and Harrogate and a standby site located in Chiswick. The Bristol site concentrates on IBM mainframe and IBM AS/400 operation while the Harrogate site houses ICL and Digital Equipment.

Similarly in France, Télésystèmes is rationalising its Paris-based data centres, though the company still sees a need to retain its regional data centres. In Germany, tele-daten-service (tds) is reducing its number of data centres from six to three, and Alldata is concentrating its three data centres in West Germany into a single site.

In the medium to long term, many vendors will concentrate their platform operations activities around two "mega-centres", possibly supported by numerous small satellite operations serving local needs.

However the nature of platform operations or "infrastructure management" is beginning to change, driven by users increasing adoption of distributed client-server architectures, based on open systems. These decentralised systems will remain on user premises and, whether supported by on-site teams or remotely, require fundamentally different operations management techniques to those employed in the management of large centralised mainframe-oriented data centres.

A number of vendors are beginning to respond to these changes in the market, particularly in the U.K. Here the major personal computer dealers such as P&P, Computacenter and JWP Businessland have begun to take on the management of the desktop environment for major corporations such as ICI, Unilever and the TSB. This has prompted organisations such as Data Sciences and Hoskyns to target the management of distributed client-server architectures and desktop systems. Data Sciences has used its partnership with Computeraid to win contracts such as that to manage the client-server architecture of the National Grid. Hoskyns has formed a separate division within its outsourcing unit specifically to target desktop services.

In France, there is less emphasis at present on the management of distributed systems and desktop services. However as the trend to downsizing becomes more established, vendors are increasingly targeting transition outsourcing. Axone, the joint venture between IBM and the Sema Group, is particularly well placed to take advantage of this trend. Overall, in excess of 50% of Axone's contracts arise from transition outsourcing situations, and, in addition to IBM equipment, Axone's data centres hold equipment from Groupe Bull, Unisys and Digital. In 1991, Axone's revenues grew by 70%.

F
Vendors' Commitment to Platform Operations Remains High

Vendors frequently comment on the high degree of price competition in the platform operations segment of the outsourcing market. This is very understandable given typical margins of 0-5% in this business. Vendors also use these remarks to cast doubts on the financial stability of new entrants to the market, by implying that their costings may be at fault leading to an inability to sustain their business in the long term.

However, in spite of the difficulties of company differentiation, and the resulting low profit margins in platform operations, vendors continue to show a high level of commitment to the platform operations segment.

One of the major reasons for this is that platform operations does lead to the subsequent adoption of additional services. Vendors estimate that approximately 60% of their platform operations clients have subsequently adopted additional systems operations services involving network management or applications development.

Transition outsourcing has a similar appeal with 40% of clients subsequently requesting the vendor to assist in areas such as the management of the new IS infrastructure, often including network management.

Downsizing is continuing to drive users' adoption of transition outsourcing. INPUT estimates that 25% of organisations downsizing their IS systems utilise the services of an outsourcing company to assist their management of their "old" systems. Some examples of recent transition outsourcing contracts are listed in Exhibit IV-10.

EXHIBIT IV-10

Transition Outsourcing: Examples

Client	Vendor	Contract Value ($M)
John Laing	BIS	20
Bank of England	Hoskyns	12
Thames Water	Andersen Consulting	10
Pilkington Group	EDS-Scicon	8
Thorn Emi Rentals	Data Sciences	7

Hoskyns will manage the Bank of England's IBM mainframes and proprietary midrange systems while these are being replaced by a range of distributed open systems.

Similarly John Laing is phasing out a large data centre which has been acquired by BIS, and the Pilkington Group is undergoing a transition from IBM mainframe-based systems to PC Lan-based systems.

However not all transition outsourcing is concerned with downsizing. Thames Water, for example, has adopted a policy of standardising on IBM mainframes and appointed Andersen Consulting to manage the run-down of its existing ICL mainframes.

More unusually, one organisation—Thorn Emi Rentals—is moving back to proprietary systems having been dissatisfied with the performance of its UNIX-based systems. Perceiving the UNIX architecture to be insufficiently advanced to meet its needs, Thorn Emi Rentals has appointed

Data Sciences to manage its UNIX-based systems while it undergoes a re-implementation of its systems on IBM AS/400 equipment.

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V
Vendors Increasingly Target Application Operations

A
U.S. Outsourcing Specialists Demonstrate New Business Development Capability

On the whole, European organisations continue to resist the adoption of application operations. Application operations involves an outsourcing vendor taking over the management not only of an organisation's computer operations activities but also of its systems development activities.

IS managers may be increasingly prepared to adopt transition outsourcing, which assists them in dedicating all their management time and resources to the critical task of new systems development. This is especially applicable in times of cost and headcount restraints. As a bonus, the outsourcing vendor remains at arms length from the rest of the organisation and the contract comes to a definite end after a period of, say two years. So this type of outsourcing presents little threat.

If pressed further, IS managers may be prepared to relinquish their infrastructure management activities in the form of platform operations, network management, and desktop services.

Also in response to headcount constraints, IS managers may even consider outsourcing the maintenance of aging applications. Maintenance was always an unpopular activity with their own personnel.

The areas IS managers are typically most reluctant to outsource are IS strategy development, the identification of user requirements and new systems development. Accordingly application operations remains much less popular with users in Europe than in the U.S.

On the other hand, application operations is very popular with outsourcing vendors since it enables them to move away from platform operations into the higher value-added and profit areas of consultancy and systems development.

Some recent examples of application operations contracts are listed in Exhibit V-1.

EXHIBIT V-1

Application Operations:　Examples

Client	Vendor	Contract Value ($M)
East Midlands Electricity	Perot Systems	600
Europcar	Perot Systems	400
London Stock Exchange	Andersen Consulting	100
Wiltshire County Council	Telecom Capita	40
Ideal Standard	CSC	40*

*INPUT estimate

One recent phenomenon is the success achieved by the large U.S. outsourcing specialists such as CSC and Perot Systems in winning major contracts in Europe.

These vendors, together with EDS, exhibit a lack of interest in the comparatively small infrastructure management and transition management deals which characterise the European outsourcing market. Instead their emphasis is on gaining control of the overall management of the IS function in large organisations and, as a result, becoming involved in substantial systems development/systems integration projects.

Typically European companies only tend to outsource to this extent if there is both dissatisfaction with the effectiveness with which the IS function has supported the enterprise's business needs and if major changes are taking place. These changes might be in the underlying business processes as the organisation adapts to a changed business environment. Alternatively they

might be instigated by changes in IS technology generating opportunities for improved IS support to the business.

For example, Perot Systems' contract with Europcar involves replacing the company's mainframe-based IS infrastructure and installing a pan-European Unix-based client-server network, over a ten year period. The change from proprietary to open systems-based infrastructures presents a major opportunity to outsourcing vendors since in-house IS departments will experience difficulties in switching the skills of their personnel on a massive scale. Rather than retrain the entire IS department, some organisations may prefer to adopt the services of an outsourcing vendor.

The need to develop and implement a new generation of systems was instrumental in East Midland Electricity's appointment of Perot Systems. In this instance, Perot Systems persuaded senior management of its ability to develop the new range of systems required. The company also emphasised its ability to reduce the cost of development by selling the resulting systems to other European utilities.

The U.S. outsourcing specialists such as CSC, EDS and Perot Systems present a real threat to the indigenous vendors in Europe in this type of contract. In this area, they can point to examples of their work for major corporations in the U.S. such as EDS' work for its parent General Motors. The major European vendors will typically have more difficulty in demonstrating reference contracts of this scale.

It is also necessary to take an imaginative approach to pricing to win these major contracts. For example, EDS is often prepared to price contracts against changes in its clients' business volumes rather than pricing against computer resources used. Similarly the concept of development partnerships appears to be gaining in popularity with senior executives. In these cases the vendor plays a major role in systems development but reduces the costs by marketing the end product more widely. In addition to Perot Systems' contract with East Midlands Electricity, other examples of this type of partnership include Logica's agreement with Yorkshire Water Authority and Sema Group's joint venture with British Airways. Strictly speaking these arrangements should be considered as joint ventures rather than outsourcing, but the net results have much in common.

B
European Vendors Target the Development of Existing Clients

It would be incorrect to imply that the European vendors do not have a new business capability in application operations. One long-standing example is Hoskyns' contract with Imperial Tobacco which involved developing the applications necessary to downsize Imperial Tobacco from centralised mainframes to IBM AS/400-based applications.

However, one of the principal tactics employed by European outsourcing vendors in targeting application operations is the upgrading of their existing platform operations clients to application operations. INPUT estimates that vendors typically succeed in this approach with 30% of their platform operations client base.

C
Prospect Identification Remains a Challenge

It is extremely difficult to identify application operations prospects, though at the individual company level it is clear that the factors listed in Exhibit V-2 all have a correlation with the adoption of application operations.

EXHIBIT V-2

Factors Influencing Adoption
of Application Operations

Factor	Correlation
Change of chief executive or financial director	Positive
Senior executives' prior experience of outsourcing	Positive
Strength of relationship between Senior Executives and IS Managers	Negative
Prior effectiveness of the IS department in supporting the business	Negative
Major change in business direction or processes	Positive
Company restructuring and decentralization	Positive
Major change in IS infrastructure	Positive
Severe cost/competitive pressure	Positive

Essentially these factors can be grouped into three major categories:

- The strength of the relationship between the in-house IS department and senior executives

- The perceived past and future capability of the in-house IS department to support the organisation's business needs

- The degree of cost pressure faced by the organisation.

The interaction of these factors makes it difficult to select sectors or even sizes of company which have a greater propensity to outsource than others.

However it is generally valid in the U.K., for example, to assume that major financial services organisations are facing high levels of cost pressure. Similarly senior management in the public sector frequently perceive that their IS staff will be offered improved job security in the current economic climate by transferring to an outsourcing vendor. Another example in the U.K. is the recently privatised utilities sector. These organisations are facing considerable pressure to adapt their business methods. The resulting demand for new IS systems is placing considerable strain on the in-house IS departments' ability to respond without utilising outside assistance.

In France, the most receptive sectors to application operations are perceived by vendors to be:

- Financial services
- Distribution
- Tansportation

Vendors remain divided regarding the relative potential for application operations offered by small, medium and large companies. For the purpose of this question, these size categories were defined as follows:

- Large - turnover > $200 million

- Medium - $40 million >= turnover <= $200 million

- Small - turnover < $40 million.

Some vendors perceive that an organisation's receptivity to application operations increases with company size. Other vendors perceive that large vendors have large teams of skilled IS staff and so can more readily meet their needs internally, while smaller users have difficulty in attaining a critical mass of in-house IS skills and so have a greater need to outsource any major systems development activity.

So far, this remains a matter of individual company strategy with some vendors such as EDS and Andersen Consulting targeting the major organisations and others, such as Digital, more concerned to meet the systems development needs of small and medium-sized organisations.

D
Public Sector Exhibits Business Operations Potential

The evolution of outsourcing can be portrayed as a progression from platform operations through application operations to business operations, as shown in Exhibit V-3.

EXHIBIT V-3

Outsourcing Trends
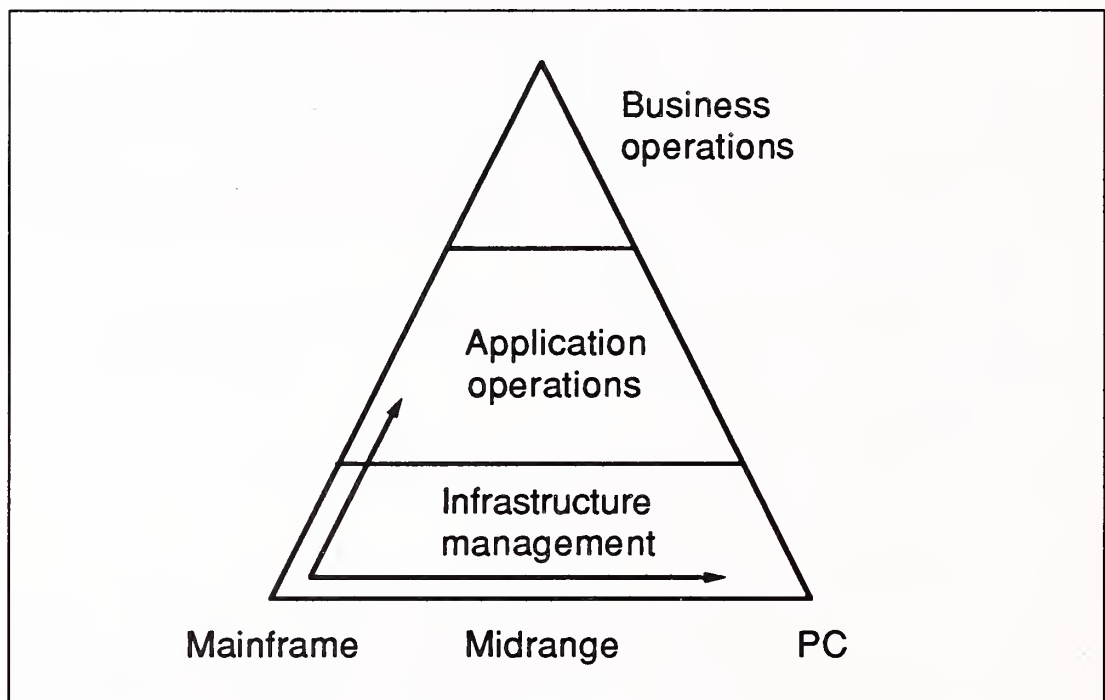
In this model, platform operations—representing the outsourcing of IS infrastructure—is the lowest form of outsourcing's evolution. This is followed by application operations, representing the outsourcing of both the IS infrastructure and IS systems development. This still only involves the outsourcing of IS-related activities.

However it can be argued that for organisations to maximise their flexibility and efficiency, they should outsource all non-core business activities. This involves outsourcing the business process itself and not just its IS support.

The principal example of this type of business operations outsourcing in Europe is Andersen Consulting's contract with BP Exploration to manage the company's accounting function.

While there are few examples of business operations outsourcing in the private sector, business operations is becoming well-established in the U.K. local government market. The Capita Group has been the main beneficiary of this trend. In 1992, Capita became the first company to take responsibility for managing the entire revenue function of a local authority.

Capita has a $7 million contract with East Cambridgeshire District Council, a local authority in the United Kingdom. All of the revenue collection and benefits staff are being transferred from the council to Capita and Capita is taking over responsibility for the council's community charge, housing benefits, and council tax systems.

If Capita succeeds in increasing the proportion of community charge payments collected from the 85% achieved by the council to in excess of 95% of the due amounts, then Capita will receive a bonus payment. However if Capita fails to meet agreed minimum collection targets, then the council can claim liquidated damages for breach of contract.

Elsewhere in the public sector, Capita has won 27 contracts for its revenue collection services.

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A
Vendor Profiles

A
Outsourcing Profile of GSI

GSI Is Targeting Application Operations for Future Growth

In 1990, GSI was the market leader in the French outsourcing market, ahead of companies such as GFI, EDS, and Axone, and in fourth place in the overall European outsourcing market, behind Hoskyns, EDS, and AT&T Istel. In 1991, the company lost first place in the French market as a result of the merger between EDS and SD-Scicon/GFI, and its second place in this market is increasingly under threat from Axone. Axone's outsourcing revenues grew by 70% in 1991, compared to 18% growth in those of GSI. GSI's outsourcing revenues by country for 1991 are shown in Exhibit A-1.

EXHIBIT A-1

GSI
Outsourcing Revenues by Country, 1991

Country	Revenue (FFM)	Percent
France	330	70
Spain	85	18
Switzerland	50	10
Italy	10	2
Total	475	100

To maintain its position as one of the leading outsourcing vendors in France, GSI will:

• Endeavour to extend its outsourcing market penetration beyond the hypermarket and transportation sectors

• Continue to reassure clients that outsourcing is a reversible process.

To maintain its position as one of the European market leaders in outsourcing, GSI will need to enter the U.K. outsourcing market, which is the most advanced outsourcing market in Europe. The company's major European competitors—Cap Gemini Sogeti, EDS, and AT&T Istel— already have a substantial presence there, and GSI will need to establish its own presence if it is to keep in touch with the market leaders.

Developing Outsourcing in the Manufacturing & Banking Sectors

Many outsourcing vendors find difficulty in differentiating their offerings for the platform operations market. Hence platform operations is an area of intense price competition for them. GSI faces similar issues. Accordingly the company is keen to extend its penetration of the application operations segment. GSI's current revenue breakdown between platform operations and application operations is shown in Exhibit A-2.

EXHIBIT A-2

GSI
Outsourcing Revenues by Service Type, 1991

Service Type	Revenues (FFM)	Percent
Platform Operations	240	50
Application Operations	240	50
Total*	475	100

* Data may not add to total due to rounding

Whereas platform operations can be marketed as a "horizontal" service independent of industry sector, application operations depends on building up high levels of expertise in the sectors to be targeted. Exhibit A-3 provides a breakdown of GSI's current outsourcing revenues by industry.

EXHIBIT A-3

GSI
Outsourcing Revenues by Industry, 1991

Sector	Revenues (FFM)	Percent
Discrete Manufacturing	85	18
Process Manufacturing	10	2
Banking & Finance	50	11
Distribution	130	27
Transportation	110	23
Other	90	19
Total	480	100

So far GSI has been successful in the hypermarket sector, where the company's clients include Arlaud and Carrefour, and in the road and rail transportation sectors, where the company's clients include Sernam and Gefco.

However GSI now needs to extend its outsourcing coverage to increase its revenues from the discrete manufacturing and banking sectors. GSI already specialises in application software products for securities management. The company also has an established position in the discrete manufacturing sector acquired through its Tolas production management and distribution systems.

Reassuring Clients that Outsourcing is Reversible

GSI finds that the receptivity of potential clients to application operations is markedly lower than their acceptance of platform operations, and potential clients have a fear of being "locked-in" to an outsourcing vendor.

To overcome these fears, GSI stresses the reversibility of application operations to potential clients both during the sales process and within its contracts. GSI sees the key to this reversibility as the client's retention of a core nucleus of strategic IS personnel around whom an in-house IS department could be rebuilt if necessary. Within the outsourcing arrangement these IS personnel interface with the organisation's key

management and are responsible for the development of the IS strategy whereby the company's key business needs are supported.

GSI forms a strategy committee within each client to monitor strategic information issues. This committee contains representatives from both the client's and GSI's senior management and from the user departments as well as GSI's account manager and the client's information systems manager.

Developing Outsourcing in the U.K.

The U.K. market is the largest and most advanced outsourcing market in Europe, and if GSI is to remain amongst the outsourcing leaders in Europe, the company needs to extend its outsourcing activities to the U.K. The current locations of GSI's data centres are shown in Exhibit A-4.

EXHIBIT A-4

GSI's Data Centres

Sites	Equipment
Suresnes (Paris)	IBM (VM/VMS/DOS)
Echirolles (Grenoble)	IBM AS/400
Belgium	Digital VAX
Germany	IBM RS/6000
Italy	Tandem
Spain	Hewlett-Packard
Switzerland	AT&T/UNIX

GSI's overall revenues in the U.K. of approximately FF120 million give the company insufficient presence to develop its outsourcing business there organically. Accordingly collaboration, or a merger, with one of the independent outsourcing vendors such as ITnet or Data Sciences appears an attractive option for GSI. Since ITnet's emphasis is primarily on the local government and process manufacturing sectors, its activities offer only comparatively low levels of synergy with those of GSI, whereas Data Sciences offers a much better fit with its discrete manufacturing and financial services orientation.

B
Outsourcing Profile of Télésystèmes

Télésystèmes will diversify beyond Platform Operations

At present, Télésystèmes has approximately 25 outsourcing clients and total outsourcing revenues of FF450 million—40% of which are derived from its parent company France Telecom. The majority of these revenues are derived from platform operations contracts, though these tend to have an appreciable network management content.

Some of the Télésystèmes current outsourcing clients are listed in Exhibit A-5.

EXHIBIT A-5

Télésystèmes Outsourcing Clients

- CNES (National Centre for Space Studies)

- France Telecom

- Thomson

- Paris port authority

- Chantiers Navals de la Méditerranée

To further develop its outsourcing business, Télésystèmes has been reducing the cost of its platform operations services by consolidating its data centres, and will be increasingly looking to develop additional outsourcing services such as application operations.

Consolidation of Data Centres

Télésystèmes reorganised to the structure shown in Exhibit A-6 in 1990.

EXHIBIT A-6

Télésystèmes Organisation Structure

Telecom Operators	Gov't. and Public Services	Industry Services Banking	Media	Regional Market

Sales Units

Production Units

- Systems Operations
- Networking and Systems Integration
- Business and Product Management
- Multimedia
- Contract Staff
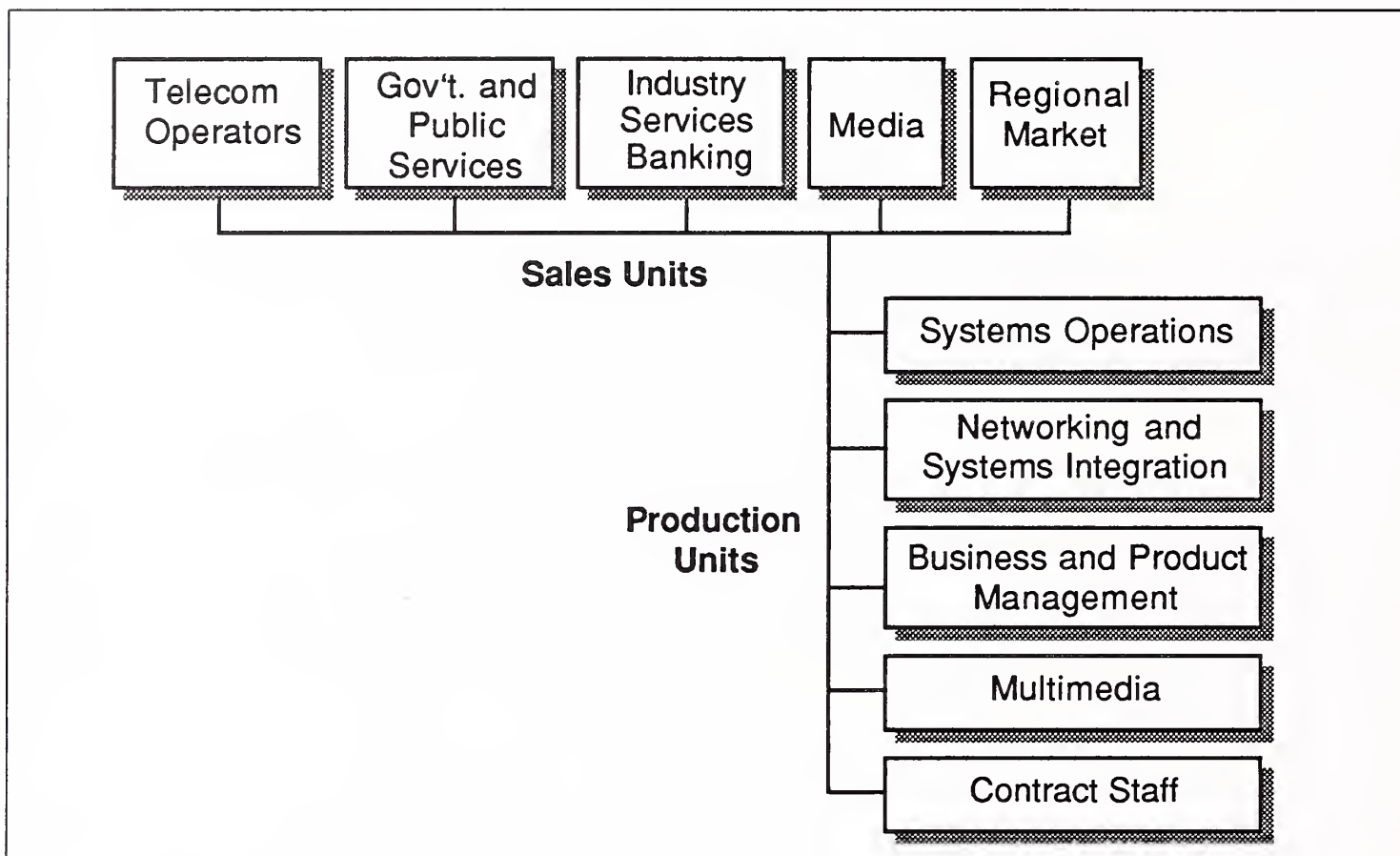
The company's sales activity is now organised by sector while the company's production units remain functionally organised. The systems operations business unit, which also includes processing services personnel, employs 500 personnel.

To reduce costs within this division, Télésystèmes is in the process of consolidating to two data centres in Paris, though the company still finds that it needs to maintain local data centres throughout the French Regions to remain competitive in these areas.

Télésystèmes' main capabilities with these data centres are concentrated on Bull, IBM, and Digital equipment.

Currently, Télésystèmes has data centres located in Paris, Rouen, Lille, Nancy, Nantes, Bordeaux, Toulouse, Lyon and Marseille.

Increased Emphasis on Application Operations

Exhibit A-7 indicates the breakdown by Télésystèmes' total revenues by industry sector.

EXHIBIT A-7

1991 Market Analysis by Industry Sector (FF Millions)

Industry Sector	Revenue	Percent
Telecommunications	700	41
Banking and Finance	85	5
Government	170	10
Industry	320	19
International	240	14
Distribution & Services	185	11
Total	1,700	100

Source: Télésystèmes

The breakdown of Télésystèmes' outsourcing revenues largely mirrors this activity, with France Telecom accounting for 40% of the company's outsourcing revenues, and the other principal areas of outsourcing focus being:

- Discrete manufacturing companies
- Public sector
- Radio & television companies.

To support its developments of outsourcing in these sectors, Télésystèmes will increasingly focus on application operations.

To support the development of its application operations services, Télésystèmes views access to application software products as essential.

The company can be expected to expand its application software product portfolio which currently includes:

- TX-Base—production management system for discrete manufacturing organisations

- Engineering Express—an engineering database management system

- SCOPE Achats—Télésystèmes' own purchasing system.

Télésystèmes will focus predominantly on application software products which run under UNIX. Both TX-Base and Engineering Express are currently available under UNIX, while Scope Achats is awaiting conversion from a Bull GCOS 7 environment.

For TV and radio stations, Télésystèmes offers a range of multimedia applications.

In addition to application operations, Télésystèmes expects to increase its activity in transition management and network management. Telesystemes currently only derives 5% of its outsourcing revenues from transition management, though there are signs of the transition management market beginning to grow substantially in France.

The company will also become more active in network management. Télésystèmes has recently acquired the rights to a product for integrating E-mail systems and supports France Telecom's Acumaster scales.

C
Outsourcing Profile of Data Sciences

Developing Beyond Platform Operations

Data Sciences estimates its outsourcing revenues to be approximately $75 million from a client base of 50 customers. At present, as indicated in Exhibit A-8, over two-thirds of the vendor's revenues come from the highly competitive platform operations segment.

EXHIBIT A-8

Breakdown by Service Type
Outsourcing Revenues, Data Sciences

Service Type	Proportion (%)
Platform Operations	70
Application Operations	30

Data Sciences is concerned about the high price of competition in this segment where it perceives that a number of its competitors are "buying" market share with little regard for the profitability of contracts. Accordingly Data Sciences is endeavouring to increase its emphasis within outsourcing on higher value services such as application operations. The company claims that the applications component within outsourcing deals is increasing. However at present the company is finding that application operations deals tend to be comparatively low-value contracts and so the proportion of the overall business accounted for by platform operations is only changing very slowly.

The major opportunities for Data Sciences to increase its application operations revenues appear to come from two sources:

- Development of its existing outsourcing client base

- Targeting medium-sized companies with limited application development capability.

Research conducted by INPUT in Europe suggests that medium-sized companies, lacking comprehensive in-house systems development capability, may present a better application operations opportunity than the blue-chip companies. Clearly Data Sciences perceives the smaller subsidiaries of multinationals to be prime candidates for this type of service.

Decreasing Reliance on Thorn EMI Group

Data Sciences estimates that approximately 30% of its outsourcing business comes from its former association with Thorn EMI, and the company has major outsourcing contracts with Thorn Lighting and Ferguson.

A breakdown of Data Sciences' outsourcing clients by industry sector is provided in Exhibit A-9, and examples of their clients in the manufacturing and financial services sectors are provided in Exhibits A-10 and A-11.

EXHIBIT A-9

Breakdown by Industry
Outsourcing Clients, Data Sciences

Sector	Proportion of Clients (%)
Manufacturing	22
Financial Services	22
Business Services	28
Other	28

EXHIBIT A-10

Outsourcing Clients
Manufacturing Sector, Data Sciences

- Thorn Lighting
- Ferguson
- Birds Eye Walls
- Unilever

EXHIBIT A-11

Outsourcing Clients
Financial Services Sector, Data Sciences

- General Portfolio
- Nationwide Anglia
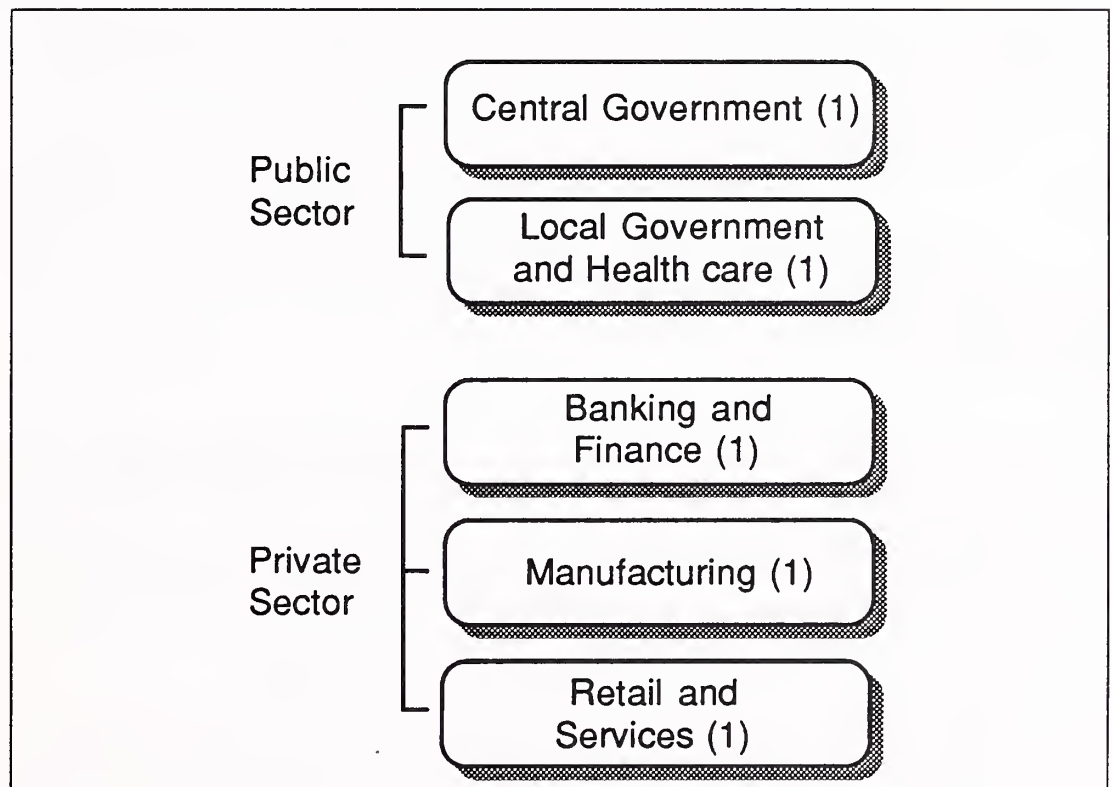- Securities & Investment Board
- Sedgwick Group

The company has also been successful in targeting the broadcasting sector and had outsourcing contracts with Thames TV and Television South.

The company's average contract length for public sector contracts is 4-5 years while, influenced by the shorter transition management contracts, in the private sector the company's average contract length is approximately two and a half years.

Data Sciences has five sales managers addressing new business and these are organised as shown in Exhibit A-12.

EXHIBIT A-12

New Business Sales Organisation Outsourcing, Data Sciences

Public Sector
- Central Government (1)
- Local Government and Health care (1)

Private Sector
- Banking and Finance (1)
- Manufacturing (1)
- Retail and Services (1)

Data Sciences stresses the importance of its sales managers having a good knowledge of the industries they target, while acknowledging that outsourcing is frequently a horizontal service.

Data Sciences tends to target prospects' financial directors though managing directors and even IT directors are possible targets. This reflects the increasing appearance of business-oriented IT directors who have a pre-occupation with aligning IT with the business rather than being service providers. The traditional Data Processing Manager is not regarded as a suitable prospect.

Data Sciences perceives that companies are increasingly using consultancies to assist them in preparing Invitations to Tender (ITTs) and in selecting a suitable vendor. Data Sciences expects to win one in three of those outsourcing deals in which the company is selected for the short-list. To achieve the short-list, Data Sciences believes it is necessary to offer the prospect a significant level of savings, say 15%, over its in-house costs. Data Sciences perceives that it may have been insufficiently aggressive in its pricing in recent years.

It is important that each sales manager is a "deal maker" who can structure a deal to the prospect's individual requirements. The sales manager is typically supported in each sales situation by a technical support manager, a bid manager who evaluates the financial risk of the contract, and a personnel manger. Data Sciences endeavours to utilize IS staff from the prospect wherever possible, but it is important to bear in mind that reducing the number of personnel is one way of reducing cost.

Moving to Management of UNIX-Based Infrastructures

On the service delivery side, Data Sciences employs approximately 400 personnel. The profile of the company's data centres is shown in Exhibit A-13.

EXHIBIT A-13

Data Centre Profile
Data Sciences

- 4 Major Data Centres based around London

- Thorn Lighting - 5 sites

- Other clients - 4 sites

In total, Data Sciences has 13 data centres. Its main sites are based around London at:

- Sunbury
- Croydon
- Hoddesdon
- Westmount.

Sunbury is the major data centre, while the data centre in Croydon was acquired from Lowndes Ajax in 1988 and houses equipment from Hewlett-Packard, IBM, Bull, and Digital. Overall the company's operations are principally based around IBM mainframes, though Thorn Lighting's sites

house Digital equipment and Data Sciences also manages several AS/400's off-site.

However Data Sciences now sees an increased emphasis on the need to manage distributed networks based around open systems. The main challenges for vendors operating in this sector is not economies of scale but the need to deliver and maintain an effective distributed IS infrastructure. Data Sciences has won two contracts of this nature with the Commission for the New Towns and the National Grid.

National Grid has awarded Data Sciences a two-year deal to manage a distributed network of 500 PC and seven UNIX-based servers. The deal, worth $2 million, involved the provision of system administration and computer support services.

Data Sciences' links with Computeraid are critical in enabling the company to handle the desktop services aspects of such deals. Data Sciences has also recently won an outsourcing contract with Sedgewicks which involves downsizing and the management of a large installed base of personal computers.

The management of distributed systems and the provision of desktop services will be important targets for Data Sciences over the next few years. In the mainframe environment, multi-vendor deals are expected to increase in importance.

Data Sciences believes that the next few years will see a reduction in the number of outsourcing vendors in the U.K., as a large number of vendors continue to chase commodity deals. Data Sciences will endeavour to improve its profit margins by targeting both application operations and higher value added services in the management of distributed IS networks.

Some of the immediate challenges facing Data Sciences are the need to extend its geographic coverage in Europe, the necessity to ensure the company's ongoing price competitiveness in platform operations, and the desirability of continuing to extend the company's industry/business consultancy capability.

Data Sciences' strengths are summarised in Exhibit A-14.

EXHIBIT A-14

Strengths
Data Sciences, Outsourcing

- Established outsourcing vendor

- Mainframe operations capability

- Partnership with ComputerAid

D

Outsourcing Profile of Hoskyns

Hoskyns found trading conditions difficult in the United Kingdom in 1991 as potential clients postponed major projects and the company's revenues from consulting and education also fell, as shown in Exhibit A-15.

EXHIBIT A-15

Hoskyns
European Revenue Breakdown by Activity

Activity	1990 Revenues (£M)	%	1991 Revenues (£M)	%
Consulting, Education & Training	27.1	12	22.3	11
Project Services	68.1	31	78.8	39
Information Systems Support	128.0	57	99.5	50
Total	223.2	100	200.6	100

Source: Hoskyns

Revenues from Hoskyns' systems operations activities are included under the heading Information Systems Support (ISS) in Exhibit A-15. Hoskyns defines Information Systems Support as assisting customers to successfully support ongoing systems. In the 1990 annual report Hoskyns classified £107 million of these revenues in the category "facilities management".

Hoskyns' ISS revenues in 1991 were adversely impacted by two factors:

- The conclusion of contracts together worth £20 million with Plessey and the London Residuary Body

- The fierce price competition for platform operations contracts.

New Services Increasing in Importance

Hoskyns remains the market leader in systems operations in Europe. The company has approximately 100 systems operations contracts currently in progress, and estimates that the cumulative number of contracts entered into now totals 280.

However the nature of these contracts is now changing appreciably following the trends listed in Exhibit A-16.

EXHIBIT A-16

Outsourcing Trends
Hoskyns

- "Crossroads" deals fall below 50%

- More outsourcing based on midrange equipment

- Importance of maintenance management increasing

Hoskyns has traditionally been a specialist in transition management contracts, where a systems operations vendor manages the operation and possibly maintenance of a client's existing (typically mainframe-based) services while the client's IS personnel focus on the development and implementation of new (typically distributed) systems. Hoskyns has targeted such transitions with its "Crossroads" service and this, in recent years, has accounted for the bulk of the company's systems operations revenues. However Hoskyns now sees the importance of this service decreasing and new services taking its place.

In particular Hoskyns sees an increasing opportunity to manage distributed networks of mid-range equipment. Indeed these may even have been implemented while Hoskyns managed the mainframe IS environment.

Hoskyns also recognises that the bulk of in-house IS resources are tied up in addressing the maintenance and enhancement of existing systems. IS managers need to release some of this resource to enable new developments to take place, since cost pressures typically prevent IS organisations from increasing their headcount in the current recessionary economic climate. This creates an opportunity for vendors such as Hoskyns to take-over the management of the existing application base for clients.

As a result of these changes in the marketplace, Hoskyns has re-organised its outsourcing product lines within ISS as shown in Exhibit A-17.

EXHIBIT A-17

Outsourcing Product Lines
Hoskyns

- Midrange

- Mainframe

- Application management

- Desktop services

These services can be delivered to clients either individually or in any combination.

Two examples of application management contracts won by Hoskyns in 1991 are:

- ICI Agrochemicals   -   Transferred 57 personnel to Hoskyns

                        -    Outsourced systems development and maintenance functions

- PowerGen   -   Outsourced support for non-strategic systems.

Prudential Holborn also outsourced the maintenance and enhancement of a range of applications to Hoskyns in 1990.

Hoskyns Outsourcing Remains Strongest in Manufacturing Sector

An estimate of Hoskyns' outsourcing revenues broken down by industry sector is provided in Exhibit A-18.

EXHIBIT A-18

Hoskyns, 1991 Breakdown by Industry Outsourcing Revenues, Europe

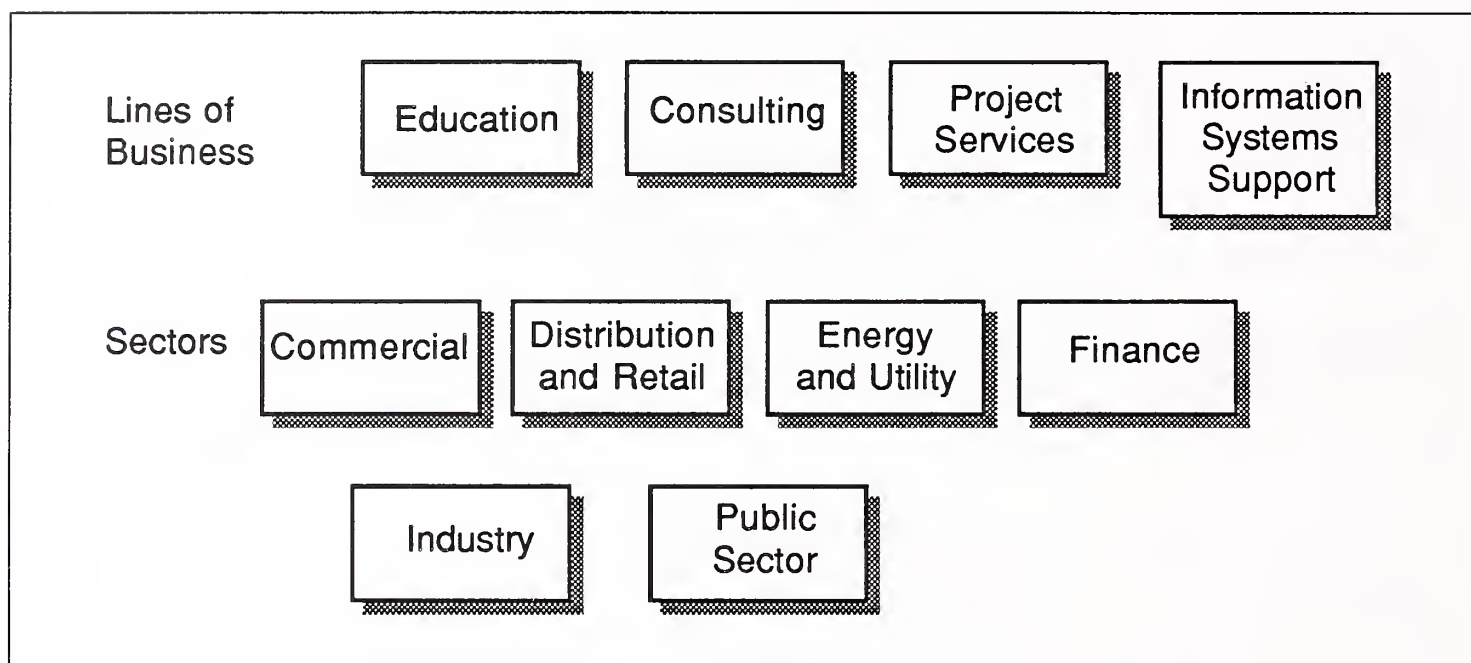| Sector	Revenues (£M)	Percent
Industry	40	40
Financial Services	15	15
Distribution	12	12
Public	12	12
Commercial	12	12
Energy and Utilities	9	9
Total	100	100

Source: INPUT estimate

Hoskyns remains at its most competitive within the manufacturing, insurance, and securities industries, and is experiencing a surge of growth in the finance sector as the competitive pressures in the U.K. banking sector encourage many of the leading banks to outsource elements of their IS activities.

The manner in which Hoskyns organises its lines of business and sector account teams is illustrated in Exhibit A-19.

EXHIBIT A-19

Organisation Chart, Hoskyns

Lines of Business	Education	Consulting	Project Services	Information Systems Support

Sectors	Commercial	Distribution and Retail	Energy and Utility	Finance

Industry	Public Sector

The client account managers reside within the industry sector sales organisation. The ISS operating division has approximately 1,000 personnel with 20 sales personnel who act in support of the industry sector sales organisation.

E

Outsourcing Profile of Alldata

Alldata estimates that systems operations accounted for DM90 million of the company's 1991 revenues.

A breakdown of the company's current customer base by industry is shown in Exhibit A-20.

EXHIBIT A-20

Alldata, 1991 Outsourcing Customer Base

Sector/Service	Number of Clients
Banking	3
Insurance	7
SAP-based	10
Total	20

The company has historically concentrated on the banking and insurance sectors, but also offers an outsourcing service based on SAP's R/2 software.

Alldata targets small- to medium-sized financial services organisations which lack the resources necessary either to develop their own applications software or to finance their own data centre. Alldata's clients typically have no in-house IS personnel and are fully dependent on Alldata for all their IS provision.

Accordingly Alldata places considerable emphasis on the ability of its sales force to negotiate at board-level and the necessity for good knowledge of the banking sector. Alldata has an active outsourcing sales force of 10-15 personnel. These are organised by industry and sell application software packages and systems development in addition to systems operations.

Alldata perceives its ability to provide applications for its outsourcing clients as a key component of its service. Accordingly the company has acquired two application software product vendors—Banken-Orga and SDV—recently to provide Alldata with a range of applications relevant to organisations in the banking and insurance sectors. Alldata principal products for the banking sector are:

- MBS - modular banking system used by 20 banks

- Melba - used by 16 banks

- MTS - front-office banking system.

Alldata's products for the insurance sector include:

- ADIS & Aktiva   -   for use by insurance sales personnel

- VM/AS   -   for administration of agency sales processes

- Depot-V   -   for deposit processing.

The locations of Alldata's data centres are listed in Exhibit A-21.

EXHIBIT A-21

Location of Data Centres

- Dusseldorf

- Sachsen

- Brandenburg

- Mecklenburg-Vorpommern

Alldata has recently merged its former three West German data centres into a single large data centre, based in Dusseldorf, and recognises that some rationalisation of its recently-acquired east German data centres may also be necessary. Alldata estimates that the consolidation of its three west German data centres is saving the company approximately DM2 million per annum.

Alldata may increasingly target network management in the future in addition to its present systems development and computer operations activities.

F

Outsourcing Profile of Tele-Daten-Service (TDS)

TDS estimates that its Outsourcing revenues amounted to DM27 million in 1991. The company has experienced a considerable increase in outsourcing in Germany during the past year, and is concentrating its strategic development around its outsourcing activities.

TDS' current outsourcing service lines are listed in Exhibit A-22.

EXHIBIT A-22

TDS, Outsourcing Service Lines

•	SAP	-	Accounting
•	SAG	-	Adabas/Natural
•	PAISY	-	Human Resources
•	Insurance		

The company has approximately 50 outsourcing clients, the majority of which use TDS' SAP based service. While manufacturing companies make up approximately 50% of the user base for TDS' SAP-based service, this service is used by clients from a broad range of industries including some banks and insurance companies. Two major selling points of TDS' service are its ability to provide 24-hour coverage, and the high level of security necessitated by having GKN, a nuclear power station, as one of its clients. This level of security can also be attractive to clients from the commercial community, especially those in the financial services sector.

TDS also offers service based on a human resources package—PAISY, and on Software AG's Adabas/Natural database.

Finally TDS provides an outsourcing service based around its own application software product—INVOS. INVOS was initially developed for WUBA, a major shareholder in TDS, but has now been turned into a standard offering used by an additional five insurance companies.

TDS' target markets are shown in Exhibit A-23.

EXHIBIT A-23

TDS: Target Markets

- Medium-sized companies

- Cross-industry

- SAP users

TDS' SAP based services are typically offered to medium-sized organisations, employing between 300 and 4,000 personnel. Such organisations cannot afford to run mainframe-based services on their own behalf.

These companies typically require SAP's R/2 product to be customised to their own needs or linked to other software products. Accordingly approximately 50% of TDS' outsourcing revenues are derived from its data centre operations and the remaining 50% from consultancy and systems development activity. Because of the high element of customisation involved, release management is an important element of the service offered.

The locations of TDS' centres are listed in Exhibit A-24.

EXHIBIT A-24

TDS: Data Centres

- Frankfurt

- Heilbronn

- Rostok

To save costs, TDS has recently consolidated the activities of its data centre based in Cologne with its major data centre in Frankfurt.

Similarly the company is consolidating its Leipzig and Potsdam data centres into its Rostok facility.

The major challenges facing TDS are listed in Exhibit A-25.

TDS: Challenges

- Develop R/3-based Services

- Develop consultancy

- Develop network management service

Until 1992, SAP's R/2 product was only available on IBM mainframes and this created a significant opportunity for vendors such as TDS to provide an R/2 based service for medium-sized companies. The economies of scale were especially pronounced since SAP only invoiced TDS for a single copy of the software regardless of the number of clients for whom TDS provided a service.

This is now set to change with the introduction of R/3, SAP's mid-range based successor to R/2. This product will be available on lower cost equipment, providing both existing and potential users the option of providing their own in-house service. In addition, R/3 will be priced by SAP according to the number of users and this will further erode TDS' cost savings to their clients.

The challenge faced by TDS is to continue to provide SAP-based outsourcing services in this new environment where clients may adopt a client/server based approach.

Secondly TDS has identified the need to solve business problems for clients rather than provide technical solutions, and recognises the need to expand its consultancy activity as a key challenge for the future.

The company is also considering entering the network management market in the medium-term.

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